

PROSTATE CANCER

BACKGROUND

Facts about prostate cancer

- Prostate cancer accounts for almost one third of all newly diagnosed cancers found in Massachusetts men.
- With the exception of skin cancer, prostate cancer is the most common form of cancer in men.
- Advancing age is the most important risk factor for developing prostate cancer.
- Black, non-Hispanic men and men with a family history of prostate cancer are also at greater risk for developing prostate cancer.

What is prostate cancer?

- Prostate cancer is a disease that develops when abnormal cells from the prostate gland grow out of control.
- The prostate gland is a male sex gland. Located below the bladder, it is about the size of a walnut. The urethra, a tube that transports urine, passes through the prostate.

What are the signs and symptoms of prostate cancer?

Since prostate cancer usually has no symptoms, regular check-ups are very important. Some men with prostate cancer may have:

- Frequent urination, especially at night.
- Difficulty urinating.
- Pain or a burning sensation when urinating.
- Difficulty starting or stopping the flow of urine.
- Pain or stiffness in the lower back, hips, or thighs.
- Pain during sex.

Having these symptoms does not necessarily mean that you have prostate cancer. Many men have these symptoms because of a non-cancerous condition known as Benign Prostatic Hyperplasia (BPH). With BPH, the prostate gland may grow larger, block urine flow, and inhibit sexual functioning.

Men should pay careful attention to these symptoms, and discuss their questions and concerns with their health care providers. Many men don't seek the advice of their health care professional until it's too late for effective treatment. If you have any of these symptoms, see your health care professional.

What are the risk factors for prostate cancer?

Risk factors for prostate cancer include:

- Age. More than 60% of all prostate cancers are diagnosed in men age 65 and over.
- Black, non-Hispanic men have the highest incidence rates compared to other racial/ethnic groups.
- Family history of prostate cancer. If you have a close relative, such as a father or brother, with prostate cancer, your chances of developing prostate cancer increase.
- Hormones. High levels of the male hormone, testosterone, have been associated with prostate cancer. Testosterone is important to the growth of the reproductive organs and body and facial hair.

Possible risk factors:

- Alcohol consumption.
- History of benign prostate disease.
- Smoking.
- Physical inactivity.
- Diet high in fat.

PREVENTION AND SCREENING

How can I reduce my risk of developing prostate cancer?

A great deal of research is being done to learn more about prostate cancer. While all of the evidence is still not in, the advice below contributes to good health and may prove to help prevent this cancer.

- If you drink alcohol, drink moderately.
- Don't smoke! Some studies have linked rapid growth of prostate tumors with smoking.
- Get at least 30 minutes of moderate physical activity (for example, brisk walking) 3 days a week.
- Eat 5 or more servings of fresh fruits and vegetables each day, especially tomatoes. Tomatoes contain a substance called lycopene, which may help prevent prostate cancer. Cut back on high-fat foods.

Screening for prostate cancer

Screening procedures for prostate cancer include:

- The Digital Rectal Exam (DRE), in which a health care provider examines the rectum to feel for any abnormalities in the prostate.
- The Prostate-Specific Antigen (PSA) test. A PSA test measures the level of prostate specific antigen in the blood stream. Certain conditions lead to high levels of PSA. They include prostate cancer and benign prostate enlargement.

It is recommended that all men ages 50 and older have a DRE and PSA test annually. Men at highest risk, including those of black, non-Hispanic heritage and those with a family history of prostate cancer, should be tested beginning at age 40.

DIAGNOSIS AND TREATMENT

This site provides general information that may apply to your specific situation. You may visit the National Cancer Institute's web site www.cancer.gov for the most current cancer information and clinical trials. Once there, you will be able to select from a full range of cancer topics. If you want to speak with a cancer information expert confidentially, you may call 1-800-4CANCER (1-800-422-6237) between 9:00 AM - 4:30 PM.

It is always best to discuss your personal risk for cancer as well as your screening, diagnosis and treatment needs with your health care provider before you commit to a course of action.

How is prostate cancer diagnosed?

Transrectal ultrasonography (TRUS) is done by inserting a probe in the rectum, and uses sound waves to visualize and evaluate any abnormalities. A biopsy of the prostate (removing a piece of abnormal tissue) is often performed during the procedure. It is necessary to examine the prostate tissue under a microscope to confirm the presence of cancer.

How is prostate cancer treated?

There are many factors to consider in deciding on treatment options. These factors include: life expectancy, general health, cancer stage, and possible complications connected with the form of treatment. Ask your health professional to help you understand the different options so that you can take an active role in developing the best plan for you.

Treatment options include:

- Watchful Waiting - Men who choose this option have regular exams to make sure the cancer is not spreading. Men with cancer that is confined to the prostate and whose life expectancy is anticipated to be no greater than ten years following diagnosis may wish to consider watchful waiting.
- Cancer Drugs/Hormone Therapy - Hormone therapy lowers the levels of testosterone in the body. It may be used for advanced disease or as a preliminary treatment.
- Surgery - Radical prostatectomy is removal of the entire prostate gland through surgery. This surgery is often chosen by men in their 50s and 60s with clinically localized prostate cancer who are in generally good health with a life expectancy of at least ten years. Side effects of the surgery can include impotence and urinary incontinence.
- Radiation - External-beam radiation therapy is used to destroy cancer cells in the body. Seed implant therapy, also known as brachytherapy, involves implanting radioactive seeds in the prostate to destroy cancer cells.

- Cryosurgery - This form of treatment kills cancer cells by freezing the prostate. You should note that more research is needed in order to evaluate the effectiveness of this treatment.

STATISTICS

How many people are diagnosed with prostate cancer? How many people die from it?

- The American Cancer Society estimates in 2007 there will be 218,890 new cases of prostate cancer in the United States. The estimated new cases of prostate cancer for 2007 in Massachusetts are 5,180.
- The American Cancer Society also estimates in 2007 there will be 27,050 deaths from prostate cancer in the United States. The estimated deaths from prostate cancer for 2007 in Massachusetts are 560.
- The national five-year relative survival rates for 1996-2003 show that 99.0% of males under 65 years of age and 98.6% of males that are 65 years of age and older survive five years after a diagnosis of prostate cancer.
- In Massachusetts between 2000 and 2004, the age-adjusted incidence rate of prostate cancer for men was 176.1 cases per 100,000 males.
- The age-adjusted mortality rate of prostate cancer among Massachusetts men was 27.4 deaths per 100,000 males between 2000 and 2004.
- The age-adjusted incidence rate of prostate cancer is 9.5% higher in Massachusetts than nationally (based on data from the North American Association of Central Cancer Registries, 2000-2004).
- The age-adjusted mortality rate of prostate cancer is 1.8% lower in Massachusetts than nationally (based on data from the North American Association of Central Cancer Registries, 2000-2004).

For additional statistics on prostate cancer in Massachusetts, see Massachusetts Community Health Information Profile (MassCHIP) Instant Topics Cancer: Prostate [<http://masschip.state.ma.us/InstantTopics/affiliate.htm>]. Please click on an affiliation then find prostate cancer for the instant topics.

DPH PROGRAMS AND INFORMATION

DPH prostate cancer programs

The Men's Health Partnership, in the Center for Community Health, provides education and outreach to men and their families on risk factors for prostate cancer and opportunities for prostate cancer screenings. This program promotes coalition and partnership building with community based organizations throughout the state to promote men's health.

Educational materials/activities include:

- A video, posters, fact sheets and brochures in several languages to target specific population groups.
- Free prostate cancer screening for underinsured and uninsured men who are age fifty or more or men age forty or more if they have a family history of prostate cancer or are of African-American descent.

Publications and Materials

Reports

The following reports can be obtained from the Massachusetts Cancer Registry website at <http://www.mass.gov/dph/bhsre/mcr/canreg.htm>

- Statewide Reports: *Cancer Incidence and Mortality in Massachusetts – Statewide Report 2000-2004*
- City and Town Series: *Cancer Incidence in Massachusetts – City and Town Supplement 2000-2004*
- Statewide Reports: *Cancer Incidence and Mortality in Massachusetts – Statewide Report 1999-2003* (which includes a special section on prostate cancer)

Pamphlets, Brochures and Videos

The following materials can be ordered through the Massachusetts Health Promotion Clearinghouse by calling 1-800-952-6637 or by visiting www.maclearinghouse.com.

- Brochure - Prostate Cancer: A Guide for Men & Their Families (*available in English and Spanish*)
- Brochure - What Every Man Should Know About Prostate Cancer (*available in Chinese, Haitian Creole, Portuguese, Russian, and Spanish*)
- Poster - What You Learn About Prostate Cancer May Save Your Life (*available in Spanish*)
- Brochure – Prostate Cancer Fact Sheet (*available in English, Spanish, Portuguese, and Somali*)

RELATED LINKS

Background/General Links

American Cancer Society (ACS)

- Cancer Reference Information: All About Prostate Cancer
http://www.cancer.org/docroot/cricri_2x.asp?sitearea=cricri&dt=36

Centers for Disease Control and Prevention (CDC)

- Prostate Cancer
<http://www.cdc.gov/cancer/prostate/index.htm>

Harvard Center for Cancer Prevention

- Your Disease Risk: Cancer - Prostate Cancer
<http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?lang=english&func=home&quiz=prostate>

National Cancer Institute (NCI)

- Prostate Cancer
http://www.cancer.gov/cancer_information/cancer_type/prostate
- What You Need To Know About Prostate Cancer
http://www.cancer.gov/cancer_information/doc_wyntk.aspx?viewid=b94a9092-bbc1-4ba2-8c75-6793238d92a4

Prevention and Screening Links

National Cancer Institute (NCI)

- Prostate Cancer (PDQ): Prevention
http://www.cancer.gov/cancer_information/doc_pdq.aspx?version=patient&viewid=4b87b51f-a4ca-490d-964d-25e5de359538
- Prostate Cancer (PDQ): Screening
http://www.cancer.gov/cancer_information/doc_pdq.aspx?version=patient&viewid=3bd07dc-e-4376-4dcb-b993-03c3dbe23e6e
- Prostate Cancer: Screening and Testing
<http://www.cancer.gov/cancertopics/screening/prostate>

Diagnosis and Treatment Links

American Cancer Society (ACS)

- NexProfiler Treatment Option Tool for Prostate Cancer
<https://www.cancer.nexcura.com/Secure/InterfaceSecure.asp?CB=265>

National Cancer Institute (NCI)

- Clinical Trials
http://www.cancer.gov/clinical_trials/
- Prostate Cancer Trial Results
<http://www.cancer.gov/clinicaltrials/prostate-cancer-updates>
- Prostate Cancer: Treatment
<http://www.cancer.gov/cancertopics/treatment/prostate>

- Prostate Cancer (PDQ): Treatment
http://www.cancer.gov/cancer_information/doc_pdq.aspx?version=patient&viewid=f4c08184-f6a9-49d5-8521-7540e59224ac

Statistics Links

American Cancer Society (ACS)

- Statistics
http://www.cancer.org/docroot/stt/stt_0.asp

Centers for Disease Control and Prevention and National Cancer Institute

- United States Cancer Statistics
<http://www.cdc.gov/cancer/npcr/uscs/index.htm>

National Cancer Institute (NCI)

- Surveillance, Epidemiology and End Results (SEER) Cancer Statistics Review, 1975-2003
http://seer.cancer.gov/csr/1975_2003/
- Cancer Stat Fact Sheets – Cancer of the Prostate
<http://www.seer.cancer.gov/statfacts/html/prost.html>

North American Association of Central Cancer Registries (NAACCR)

- Cancer Incidence Statistics
http://www.naaccr.org/index.asp?Col_SectionKey=11&Col_ContentID=49